



Micro Commercial Components

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SM05

300W

Surface Mount TVS Diodes

Features

- 300W Peak Pulse Power ($t_p = 8/20 \mu s$)
- Transient protection for data, signal, and Vcc bus to IEC 1000-4-2 (ESD) & IEC 1000-4-4 (EFT)
- Protects two unidirectional lines or one bidirectional line
- ESD protection < 15kV
- Low Leakage Current
- Solid state silicon avalanche technology
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

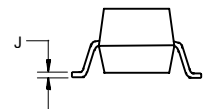
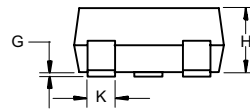
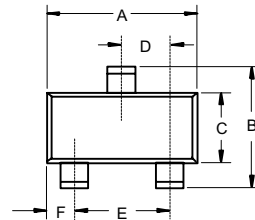
Mechanical Data

- JEDEC SOT-23 package
- Solder temperature: 260°C for 10 seconds
- Readily solderable terminals

Application

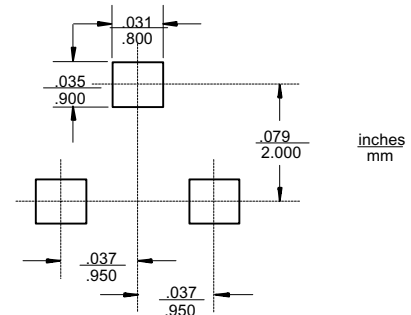
- RS-232, RS-423 data lines
- Cellular phone terminals
- Audio/Video inputs
- Portable electronics
- Networks

SOT-23

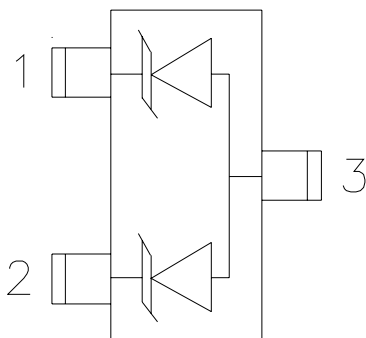


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



Schematic Diagram



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power ($t_p = 8 / 20 \mu s$)	Ppk	300	Watts
Operating Temperature	Tj	-55 to +150	°C
Storage Temperature	Tstg	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

PART NUMBER	MARKING CODE	REVERSE STAND-OFF VOLTAGE	Min V_{BR} @ 1mA	Max Clamping @ $I_{CP}=1A^1$	Max Peak Pulse Current ²	Leakage Current @ V_{RWM}	Capacitance @ 0V, 1MHz Pin 1-2	Capacitance @ 0V, 1MHz Pin 1-3 & 2-3
		V_{RWM}	BV(min)	Vc (typ.)	Ipp	I_R	Cj (max.)	Cj
		Volts	Volts	Volts	Amps	μA	pf	pf
SM05	2AC	5	6	9.5	17	20	250	300

Notes:

1. Clamping voltage values are based upon an industry standard 8 x 20 μs peak pulse current (Ipp) waveform.
2. $t_p = 8/20\mu s$



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Ordering Information

Device	Packing
SM05-TP	Tape&Reel;3Kpcs/Reel

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